

REMARKS

Summary of the Office Action

Claims 8 and 9 stand rejected under 35 U.S.C. § 112, first paragraph.

Claims 5-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S.

Patent No. 6,257,771 to Okayasu in view of U.S. Patent No. 5,253,310 to Delbare or U.S. Patent Application Publication No. 2003-0053770 to Noddings further in combination with U.S. Patent No. 6,865,307 to Ma et al.

Claims 8-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Okayasu in view of Delbare or Noddings further in combination with U.S. Patent No. 6,489,012 to Yang et al.

Summary of the Response to the Office Action

Applicants respectfully submit that the rejection under 35 U.S.C. § 112, first paragraph, is improper, and therefore should be withdrawn. Also, Applicants have amended claims 5, 7 and 8-9. Accordingly, claims 5-9 remain pending in this Application for further consideration.

The Rejections under 35 U.S.C. §112, first paragraph

Claims 8 and 9 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

The Office Action alleges that “the specification, ..., does not reasonably provide enablement for forming the waveguides or optical fibers embedded in epoxy without the use and removal of the jigs,” and goes on to conclude that “[t]he specification does not enable any person

skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.” Applicants respectfully disagree.

Applicants respectfully submit that the present invention of claims 8-9 is disclosed in the third and fourth embodiments of the specification, in which, unlike the first and second embodiments, the fixing jigs are NOT utilized. Further, the disclosure of supporting claims 8 and 9 in the third and fourth embodiments (from pages 15 to 20 of the specification) and Figs. 10-17i provide a detailed disclosure of forming the waveguides embedded in the epoxy resin.

MPEP 2164. 04 states that “[i]n order to make a rejection, the examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention” and “examiner must provide a reasonable explanation as to why the scope of protection provided by a claim is not adequately enabled by the disclosure.” Since the Office Action fails to provide a **reasonable explanation** as to why claims 8 and 9 fail to comply with the enablement requirement, Applicants respectfully request that the rejection under 35 U.S.C. §112, first paragraph, be withdrawn.

All Claims Define Allowable Subject Matter

Claims 5-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Okayasu in view of Delbare or Noddings further in combination with Ma et al. Claims 8-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Okayasu in view of Delbare or Noddings further in combination with U.S. Patent No. 6,489,012 to Yang et al. To the extent that the rejections might be reapplied to the claims as presently amended, they are respectfully traversed

as being based on references that, whether taken individually or in combination, do not teach or suggest the novel combination of features recited in the claims.

With regard to each of independent claims 5 and 7, as newly-amended, Applicants respectfully submit that Okayasu, Delbare, Noddings and Ma et al., whether taken individually or in combination, do not teach or suggest the claimed combination, including at least the recited feature of “wherein the fixing jigs inside the epoxy resin are removed from the epoxy resin.”

The Office Action concedes on Page 4 that “Okayasu (6,257,771) in combination with Delbare et al. (5,253,310) or Noddings et al. (2003-0053770) fails to teach removing the fixing jig after embedding,” but relies upon Ma et al. to remedy their deficiencies. Specifically, the Office Action appears to suggest a molding mold 300 of Ma et al. as the claimed “fixing jigs,” and alleges that “a similar process whereby optical fibers are embedded in epoxy by a molding mold and after embedding the molding mold is removed.” However, in contrast to the claimed “fixing jigs” that are inside the epoxy resin, a molding mold 300 of Ma et al. is a housing to accommodate a resin material. In other words, Applicants respectfully submit that Ma et al. fails to teach or suggest the feature of “wherein the fixing jigs inside the epoxy resin are removed from the epoxy resin,” as recited by each of newly-amended independent claims 5 and 7. Accordingly, Applicants respectfully assert that Okayasu, Delbare, Noddings and Ma et al., whether taken individually or in combination, do not teach or suggest the claimed combination including at least the above-noted feature of newly-amended independent claims 5 and 7.

With respect to independent claim 8, as newly-amended, Applicants respectfully submit that Okayasu, Delbare, Noddings and Yang et al., whether taken individually or in combination, do not teach or suggest a claimed combination including at least a feature of “a fourth step of

placing copper clads on the upper and lower sides of the aligning members while aligning the copper clads with the semicured prepreg using the aligning members interposed between the semicured prepreg and the copper clads.”

The Office Action concedes on Page 5 that “Okayasu (6,257,771) in combination with Delbare et al. (5,253,310) or Noddings et al. (2003-0053770) fails to teach the use of attaching members on the prepreg prior to cladding,” but relies upon Yang et al. to remedy their deficiencies. Specifically, the Office Action appears to suggest adhesive means of Yang et al. as the claimed “attachment members,” and alleges that “adhesive means are interposed between a plurality of copper clad laminates and each of the adhesive means comprises a clad laminate and prepreg layer formed on both surfaces of the clad laminate.” However, in contrast to the present invention of newly-amended independent claim 8, wherein the copper clads and the semicured prepreg are aligned with each other by the aligning member, the adhesive means of Yang et al. are merely a laminated prepreg layer. Yang et al. fails to teach or suggest using the adhesive means to align the copper laminate with the prepreg layer. In other words, Applicants respectfully submit that Yang et al. fails to teach or suggest the feature of “a fourth step of placing copper clads on the upper and lower sides of the aligning members while aligning the copper clads with the semicured prepreg using the aligning members interposed between the semicured prepreg and the copper clads,” as recited by each of newly-amended independent claim 8. Accordingly, Applicants respectfully assert that Okayasu, Delbare, Noddings and Yang et al., whether taken individually or in combination, do not teach or suggest the claimed combination including at least the above-noted feature of newly-amended independent claim 8.

For similar reasons as those set forth above, Applicants respectfully submit that Okayasu, Delbare, Noddings and Yang et al., whether taken individually or in combination, do not teach or suggest the claimed combination including at least the feature of “a fourth step of placing a copper clad on the aligning member while aligning the copper clad with the waveguide layer using the aligning member interposed between the epoxy resin and the copper clad,” as recited by newly-amended independent claim 9.

Accordingly, for at least the reasons set forth above, Applicants respectfully assert that the rejections of independent claims 5, 7, 8 and 9 should be withdrawn because all of the applied references, whether taken individually or in combination, do not teach or suggest each and every feature of these independent claims. MPEP § 2143.03 instructs that “[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 409 F.2d 981, 180 U SPQ 580 (CCPA 1974).” Further, Applicants respectfully submit that the rejection of claim 6 should also be withdrawn at least because of its dependency upon independent claim 5 and for the reasons set forth above.

Without other rejections pending, Applicants respectfully assert that claims 5-9 are in condition for allowance.

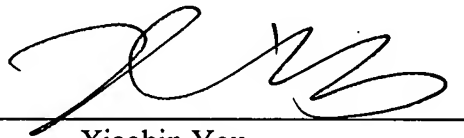
CONCLUSION

In view of the foregoing, Applicants respectfully request reconsideration and the timely allowance of all pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants’ undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such as an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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